

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference CF017983WO	FOR FURTHER ACTION		see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/JP2004/004189	International filing date (day/month/year) 25/03/2004	(Earliest) Priority Date (day/month/year) 28/03/2003	
Applicant CANON KABUSHIKI KAISHA			

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 4 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (See Box II).

3. ☐ **Unity of invention is lacking** (see Box III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☐ the text is approved as submitted by the applicant.

☒ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regards to the **drawings**,

- a. the figure of the **drawings** to be published with the abstract is Figure No. 1, 2

☐ as suggested by the applicant.

☒ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

- b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2004/004189

Box No. IV Text of the abstract (Continuation of item 5 of the first sheet)

A field-effect transistor (T2SW) in a semiconductor integrated circuit is driven by periodically applying positive and negative voltage pulses, with reference to the voltage applied to the source and drain electrodes, to the gate electrode. Stable operation of integrated circuit is realized by a simple method, even if the integrated circuit includes a field-effect transistor exhibiting a readily fluctuating threshold voltage.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/JP2004/004189

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 G09G3/32

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G09G H03K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2003/052614 A1 (HOWARD WEBSTER E) 20 March 2003 (2003-03-20) abstract page 1, paragraphs 3,4,6 page 2, paragraphs 16,18-24 page 3, paragraph 28-30 claim 2; figures 2a,2b,3a,3b	1-11
A	US 2002/195968 A1 (LIBSCH FRANK ROBERT ET AL) 26 December 2002 (2002-12-26) page 1, paragraph 10 page 2, paragraph 20 page 2, paragraph 30 - page 4, paragraph 50; figures 2,3 ----- -/--	1-11

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the international filing date

L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

G document member of the same patent family

Date of the actual completion of the international search

16 June 2004

Date of mailing of the international search report

15/07/2004

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/JP2004/004189

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 1 132 882 A (LG ELECTRONICS INC) 12 September 2001 (2001-09-12) paragraphs '0023!', '0024!', '0028! paragraphs '0031! - '0075!; figures 2a,2b,2c,2d,3,4 -----	1-11
A	US 2003/016190 A1 (KONDO SHIGEKI) 23 January 2003 (2003-01-23) paragraphs '0053! - '0087!; figures 1-6 -----	1-11
A	EP 1 191 512 A (SEIKO EPSON CORP) 27 March 2002 (2002-03-27) the whole document -----	1-11

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/JP2004/004189

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 2003052614	A1	20-03-2003	NONE	
US 2002195968	A1	26-12-2002	EP 1405297 A1 WO 03001496 A1	07-04-2004 03-01-2003
EP 1132882	A	12-09-2001	KR 2001087002 A CN 1312535 A EP 1132882 A2 US 2001019327 A1	15-09-2001 12-09-2001 12-09-2001 06-09-2001
US 2003016190	A1	23-01-2003	WO 02075709 A1	26-09-2002
EP 1191512	A	27-03-2002	JP 2002169510 A CN 1345021 A EP 1191512 A2 TW 508553 B US 2002047839 A1	14-06-2002 17-04-2002 27-03-2002 01-11-2002 25-04-2002